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J.M. Energy Consultants, Inc.

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CURRENT CALIFORNIA LEGISLATIVE

AND REGULATORY ACTIVITY

IMPACTING GEOTHERMAL

HYDROTHERMAL COMMERCIALIZATION:

A MONITORING REPORT

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CHAPTER ONE: Current California Legislative And Regulatory
Climate For Geothermal Hydrothermal Commerciali-
zation — Policy Schizophrenia

After three years of rather intense and fruitful activity, both at the legislative level and among the various administrative agencies,^{1/} it is tempting to report that no further institutional barriers remain and that there is a positive, pro-geothermal attitude extant in the hierarchy of the State of California. Such is not the case. Unfortunately, despite numerous recent gains in red tape-abolition,^{2/} there are still several crucial impediments confronting geothermal hydrothermal commercialization in California. Worse, any attempts to ameliorate these remaining obstacles will run afoul of a political administration whose policy priorities lie elsewhere.

In both the Governor's office and in the cabinet-level post of Secretary of Resources the official sympathies are directed primarily to non-energy imperatives. Solar power and energy conservation are the only exceptions to surface in the first five years of the Brown (Jr.) administration. High-powered Brown appointees reflect this choice.

Resources Secretary Huey Johnson, a state-level combination of Interior Secretary and Energy Secretary, has repeatedly gone against the combined advice of the state's geothermal-impacting agencies on key issues. The foremost example was

his Spring 1979 Congressional testimony regarding the Forest Service's "R.A.R.E. II" wilderness review. Though the state ^{3/} inter-agency geothermal group had called for immediate "release" of the hostage "study area" lands not recommended for wilderness, Johnson totally ignored their input. Instead, he berated the Service for "inadequate" wilderness acreage selections. He then complained further of the lack of new ski areas in various Forest Service Land Management Plans. Subsequently, Johnson initiated a lawsuit by the state to block any "release" to multiple use of certain areas not recommended for wilderness by the Service. That suit was, ^{4/} unfortunately, successful.

It is this type of negative leadership at the highest levels which has consistently frustrated the combined efforts of Energy Commissioner Suzanne Reed, Department of Conservation Director Priscilla Grew, former Department of Water Resources Energy Division Chief Lloyd Harvego, ^{5/} the staff of the State Lands Commission, Office and Planning and Research (O.P.R.) boss Deni Green and the Geothermal Fuels Office of the Energy Commission's Development Division to promote geothermal commercialization in California. Nonetheless, this hard core has persevered despite strong resistance at the highest level and occasional in-fighting among themselves, as well as within each separate agency.

As the 1980's begin, this bifurcated state posture towards

geothermal persists. Its impact upon specific bills, regulations and policy choices will be detailed in the chapters which follow.

CHAPTER ONE FOOTNOTES

1/

See Review of California's Geothermal-Related Legislative And Regulatory Activity Through 1979 (J.M. Energy Consultants Rpt. No. 1016, Dec. 20, 1979), hereinafter referred to as "California Report."

2/

California Report, op. cit., at Chapters II and III.

3/

At that time functioning as the "Technical Advisory Committee" to the Geothermal Resources Board.

4/

California v. Bergland, (IVS-79-523 (E.C. Calif., 1/8/80).

5/

Frustrated by the lack of state commitment, Harvego left D.W.R. last fall. He had chaired the "TAC" for a year and a half.

CHAPTER TWO: Current Legislative Activity

There are four key geothermal-impacting bills presently before the California Legislature. Two deal with the always-controversial area of state financial backing for geothermal projects. The third relates to the use of the state's share of the BLM geothermal revenues and the fourth to the protection of sensitive hot springs. We shall examine the finance bills first.

(A) Finance: A.B. 1961, introduced by Assemblyman ^{1/} Terry Goggin at the request of the Department of Conservation, ^{2/} and S.B. 1205, introduced by State Senator David Roberti, are the two financing bills. Roberti's bill would create a State Energy Finance Authority to fund all sorts of "alternative" energy projects. The Goggin-Department of Conservation bill is a geothermal-specific piece of legislation. It would set up a "State Geothermal Finance Authority" to make loans or grants for geothermal projects or guarantee private sector loans.

While the Roberti bill (S.B. 1205) has passed the Senate and gotten through the relevant Assembly Committees to the Assembly floor, Goggin's bill (A.B. 1961) was the subject of an initial hearing before his Assembly Subcommittee on Energy only this month (on January 9, 1980). Its prospects appear less bright than those of S.B. 1205.

When the A.B. 1961 concept was first being formulated by the Department of Conservation roughly a year ago, it ran into considerable opposition from other state agencies. Originally, its proponents expected fairly easy sailing in these waters. However, when they brought it before the then-TAC's Policy Subcommittee the reception was rough indeed. No one challenged the need for additional geothermal project financing. Few, if any, of the agencies raised philosophic objections to state direct financing as a usurpation of private sector capital allocations. John Woods (Bank of Montreal) had already branded a draft version of the bill as a "very objectionable injection" of the State into "direct competition with ^{3/} private lenders," however.

But virtually all the commentators were put off by the State Authority's envisioned close tie with the federal Geothermal Loan Guaranty Program (G.L.G.P.). Under the proposal, all state authority loans would be federally guaranteed. One industry representative likened this State-G.L.G.P. "wedding" ^{4/} to putting "frosting on a crumbly cake."

There were also some additional substantive objections by the Energy Commission. After reiterating the widely-shared fear of aligning any state program with the G.L.G.P. (and noting that the TAC had asked Congress to hold oversight hearings on the G.L.G.P. before voting any increased authorization) Commissioner Suzanne Reed listed: the need to fund a

Heber-sited, binary-cycle demonstration plant; the lack of an explicit funding limit; and the advisability of an overall (rather than commodity-specific) alternative energy finance entity as her reasons for not supporting the concept. It should be noted that Roberti's bill provides for such a broad-gauged unit and the Commission has supported that legislation.

At their April, 1979 meeting, the full TAC voted, for the reasons noted above, not to support the geothermal-specific proposal. Subsequently, the Department of Conservation continued to pursue the idea on its own and A.B. 1961 was introduced at its request by Goggin in September, 1979.

The final year of the 1979-80 Legislative Session will therefore see the culmination of a process which began with this author's successful introduction of a "California Geothermal Development Financing Authority" proposal to the State Geothermal Resources Task Force in August, 1977^{6/} and continued with the D.O.E.-funded Finance Workshops of both the GRB and Energy Commission. Since the Roberti bill has already passed one House, and given the continued opposition of the Energy Commission,^{7/} it is doubtful that A.B. 1961 will be passed. But passage of S.B. 1205 may achieve the same result, provided that the "Energy Finance Authority" it creates is adequately funded. A similar bill was stymied in its tracks two years ago by the passage of Proposition 13 but had been cut to an authorization of only \$20 million in Committee any-

8/ way. Such an amount for S.B. 1205 will be inadequate when spread across all alternate fuels.

(B) BLM Revenues: A.B. 1905 (Bosco) contains a formula for distributing the state's share of federal BLM geothermal revenues between the counties and the State. Assemblyman Bosco and the TAC-GCC have as yet been unable to agree on a precise formula for that split. 9/ Bosco is also undecided on the inclusion of language giving legislative sanction to the Memorandum of Understanding (MOU)-created "Geothermal Coordinating Council" (GCC) as successor to the Task Force and TAC as state inter-agency policy coordinator (See Chapter III, below). However, these wrinkles should be ironed out and the flow of geothermal revenues to the counties begun sometime this year.

The lion's share of the money - 65% perhaps - will go directly to the developmental "county of origin" (e.g., on Shell's federal leases in Sonoma County, Sonoma is the "county of origin"). Another 25% or so may go into an Energy Commission-administered loan fund to help other counties "pre-plan" for future development. This would hopefully avoid the type of excessive delays that have cropped up, e.g., in Lake County. The rest of the money will probably (and hopefully) be administered by the G.C.C. in order to fund some of the "poorer" state agencies, like the Department of Fish and Game, to do "baseline" studies, etc..

(C) Hot Springs: Assemblywoman Leona Egeland has pending yet another "protection of sensitive hot springs" bill — A.B. 1219. Ms. Egeland co-authored Assemblyman Keene's narrowly unsuccessful (10-9 in committee) version of the same bill in the 1977-1978 session.^{10/} The major changes from that effort involve: (1) substituting the Department of Conservation (housing D.O.G.) for the Native American Heritage Commission (in the 1978 bill) as the decision-maker on exactly which springs need to be protected; and (2) giving the D.O.G. broad discretion as to when to secure the protection of such springs from "adverse effect" by preventing geothermal development nearby, rather than flatly prohibiting such development within a one-mile radius, as previously drafted. The bill is a controversial one again. But as rewritten it stands a better-than-even chance of passage. The Governor and the Resources Secretary are reportedly supporting it.

CHAPTER TWO FOOTNOTES

1/

Democrat, San Bernardino. Goggin is Chairman of the Energy Subcommittee of the Assembly Natural Resources, Land Use and Energy Committee.

2/

Democrat, Los Angeles.

3/

Letter to M. Gersick, 8/17/78, at pg. 1, from John H. Woods.

4/

Letter of Rollin Russell, McCulloch Geothermal Corporation, to Mike Gersick, Department Director, Dept. of Conservation, 3/19/79, at pg. 1.

5/

March 19, 1979 Letter to M. Gersick, at pgs 1 and 2, from C. Suzanne Reed, Commissioner

6/

See August 4, 1977 Memo To Task Force from J. McNamara, at pp. 1 & 2.

7/

Telephone conversation between author and Nancy Deller on January 4, 1980 re: Energy Commission position at Jan. 9, 1980 Assembly Energy Subcommittee Hearing on A.B. 1961.

8/

S.B. 1930 (Alquist, 1978).

9/

Bosco, as of last summer, had 80% to the "counties of origin," and 20% to the fund for loans to other counties to be administered by the Commission.

10/

A.B. 3009 (Keene & Egeland), March 21, 1978.

CHAPTER THREE: Current Regulatory Activity

When surveying the activities of the various state regulators, it is useful to keep in mind that 1980 marks the fourth straight year of state-level, inter-agency geothermal coordination in California. Following up on the efforts of ^{1/} the statutory 1977 State Geothermal Resources Task Force, the various geothermal agencies utilized the existing administrative vehicle of the Technical Advisory Committee (TAC) (to the statutorily-created but functionally dormant Geothermal ^{2/} Resources Board (GRB)) throughout the next two years.

^{3/} Repeatedly frustrated by the inability of the G.R.B. (and the unwillingness of the Resources Secretary) to follow their advice or support their initiatives, the dozen or so interested agencies created a new group by Memorandum of Understanding (M.O.U.) among themselves in October of last year. (A copy is attached as Appendix A). This new entity has been ^{4/} dubbed the Geothermal Coordinating Council.

A year and a half ago, the author predicted the creation ^{5/} of this group, calling it "similar to the Federal I.G.C.C.". As yet however, it does not have the intra-state prestige that the I.G.C.C. carries at the Federal level, since it is a creature of M.O.U., not legislative. As noted above, it is the desire of the various G.C.C. agencies to include in the Bosco bill (A.B. 1905) the bulk of their M.O.U. pronouncements as to policy statewide geothermal, thus giving their

efforts legislative approval and geothermal resource development in California some much-needed prominence. Regardless of the outcome of that struggle, however, (and the failure of Brown and Johnson to support them makes the outcome cloudy) these agencies, involved in regulating geothermal activity in the State, will continue both their individual agency activities (discussed below) and their inter-agency policy coordinating and geothermal promotional functions through the G.C.C.. This will go on with, or without, higher-level administration support.

(A) California Energy Commission: As the final judge of the fitness of every geothermal powerplant site, ^{6/} the Commission (and its Siting Division) is the most visible geothermal regulator in California and quite possibly the most important. We shall not here repeat the chronology of the changes in Commission geothermal plant siting regulation. That tale was ^{7/} part of a previous report. Rather we shall analyze the post-1978 legislation experience of four proposed geothermal plants — Pacific Gas & Electric Units 16 and 17, Department of Water Resources' "Bottle Rock" plant and Northern California Power Agency Geothermal Unit No. 2. ^{8/} Significantly, all four of these proposed facilities entered the Commission's siting process prior to the end of 1978. Thus the siting law applicable to their applications was the two-phase, 18 month total set out for geothermal in the original Warren-Alquist Act of

9/ 1974. All other fuels proposed sites faced a 36 month process (18 & 18). The 1978 Goggin bill (A.B. 2644) shortened the geothermal process to twelve (12) months and also eliminated the need for the first, or Notice of Intent (NOI) phase of 11/ Commission deliberations altogether. These two incentives applied only in the case of sites where an "applicant can reasonably demonstrate . . . [the capability] of providing 12/ geothermal resources in commercial quantities".

But the four proposed plants in question, although all are at The Geysers, were each filed in 1978 and must proceed under the original "9 & 9 = 18 months" time frame. In an effort to expedite the process, however, Commissioner Reed announced that the Commission would nonetheless attempt to "beat the clock" and finish processing the four 1978 applications 13/ within the shorter 12 month time frame.

In discussing the "First Four", we shall separate them by the county for which they are proposed.

(1) Lake County Plants:

(a) P.G. and E. Unit 16: Originally submitted on August 30, 1978, Unit 16 soon ran into a problem over its south Lake County location. Protests from local residents over the "adequacy" of P.G. & E.'s Notice of Intention (N.O.I.) submission led, several months later, to a Commission decision to set the "effective filing date" of the N.O.I. as Nov. 15, 1978

"for the purposes of Public Resources Code 25540"^{14/} (which sets out the deadlines for action). Most of the vocal opposition focused, not on the 110 Mw plant, but on a 230 Kv transmission line that would be constructed at the same time. The "Oakmont Property Owners Association" (O.P.O.A.) is the cutting edge of this protest. Nonetheless, a favorable Commission decision on the Unit 16 N.O.I. was finally issued, but not until July 25, 1979, nearly a full year from initial application. A dispute over siting jurisdiction of the transmission line then broke out between the Commission and the P.U.C.. Final resolution delayed ultimate N.O.I. approval until September 4, 1979, over a year from the date of first application.

Not only had the Commission been unable to expedite the first phase of its deliberations, it had been frustrated in its attempt to meet the original Warren-Alquist geothermal timetable of 9 months for an N.O.I.. More ominous was the fact that Unit 16 was the first Lake County-sited plant to come before the Commission, and it had raised a fire storm even in the absence of air quality issues, which, as we shall see are the major obstacle. The AFC was filed on December 12, 1979.

(b) D.W.R. "Bottle Rock": On October 5, 1978, The California Department of Water Resources (D.W.R.) filed an N.O.I. (Docket No. N.O.I.-78-7) for a proposed 55 MWe plant, to be located in Lake County's Cobb Valley and called "Bottle Rock". The Commission approved the N.O.I. on June 21, 1979, thus meeting the original statutory deadline of nine months.

Located to the northeast of the major existing plants at The Geysers, this plant's southern Lake County site therefore comes equipped with a state H₂S standard violation already in place. D.W.R.'s first (of many) planned geothermal plant was set for the sensitive Cobb Valley, an area already in receipt of heavy emissions over the past decade from P.G. &E.'s Sonoma County-sited units.

The Bottle Rock AFC process commenced on July 27, 1979. Due to its Lake County Cobb Valley situs, the proposed facility soon ran afoul of the cumulative geothermal plant-driven H₂S emissions building up in that area over the past two decades despite the fact that no plant had actually operated in Lake County itself. To better understand this geographic situation, we have included, as Appendix B, a map of the two-county area showing all existing and proposed power plant sites.

Only one day after its N.O.I. was approved, D.W.R. was notified that the ultimate regulatory fate of its plant might well be settled, not by its own proceedings or their time schedule, but by Commission decisions rendered in the P.G. and E. Unit 17 AFC proceedings (discussed below). "Therefore, to best serve their interests, D.W.R. [and N.C.P.A.] . . .^{15/} should participate actively in these proceedings."

Unit 17 was to be located just over the ridge line of the Mayacmas Mountains from the proposed Bottle Rock and N.C.P.A. 1 sites in the Cobb Valley. P.G. and E. was therefore able to rather readily secure air quality permits from the North Sonoma Co. A.P.C.D.. Its proposed use of the surface condenser/Stretford Process easily met the emissions limitations of the "Model Rule For H₂S Emissions",^{16/} discussed in our earlier report. Unfortunately, there has been a recent malfunction at the first plant (Unit 15) to use this process. It is not yet clear if this will hold up Unit 17. With its remaining emissions being carried over the ridge into Lake County A.P.C.D.'s jurisdiction, it was not "causing" or "contributing" to a state H₂S standard violation in No. Sonoma, either. Thus no New Source Review problems were posed either.^{17/}

Bottle Rock, on the other hand, was the unwilling recipient of Unit 17's proposed emissions, as well as those already existing from P.G. and E.'s other Sonoma County units, in the "worst case air modeling" conducted at the request of the Lake Co. A.P.C.D. to ascertain if Bottle Rock's operations would "result in the violation or measurable contribution to the continued violation of any Local, State or National ambient air quality standard."^{18/} The study in question is the "Cobb Valley Tracer Study",^{19/} conducted by M.R.I.. It took into account projected emissions from both Unit 17 and Bottle Rock.

Since an H_2S state standard violation already exists in the area,^{20/} it was inevitable that the test data, extrapolated from the results of the release of the H_2S "tracers" at both sites, would show that operation of D.W.R.'s plant would result in a "measurable contribution" to the "continued violation" of that standard.

Since D.W.R. has no existing geothermal facilities (and emissions) to "trade off" (and thereby satisfy New Source Review),^{21/} the Lake County Air Pollution Control Officer has had to set an unusually strict emissions limit for Bottle Rock before he will issue the necessary permits. That limit is reportedly

22/
in the area of 2 lbs/hr.

At this time, it is not clear that Bottle Rock can ever be designed with any assurance that such a stringent emissions limit can be met. This is true even with the combined use of the E.I.C. Corporation's "upstream process", the surface condenser/Stretford process and the addition of hydrogen peroxide (H_2O_2) to the cooling tower condensate.

Once again, the key problem in siting most future geothermal powerplants at The Geysers appears to be air quality, not Energy Commission procedures or time tables. We predicted this in our earlier "Review" of California institutional activities,^{23/} wherein we also predicted that the real crunch would come in Lake County.^{24/} Thus the liberal 1985 and 1990 Model Rule "sliding scale" on controlling emissions at both existing and new plants is an illusory "solution". New Source Review will bar any plant in areas of existing violation, which includes much of Lake County. The County has, in fact, intervened in both the D.W.R. Bottle Rock and N.C.P.A. 1 proceedings, asking the Commission to "consolidate"^{25/} both processes.

Faced with these "real-world" difficulties, it is doubtful that the Energy Commission, due to no

fault of its own, will be able to meet its April 1980 (9 month) deadline for the certification of Bottle Rock. Faced with the air quality hurdles we have outlined, D.W.R. has itself moved to "suspend" its own application while it searches for a solution.^{26/} But the Commission does have another course of action open to them. Taking this available path, however, would involve a Commission "override" of the Lake Co. A.P.C.D..

As noted in our earlier report, the Commission and State Air Resources Board have adopted a "Joint Policy Statement" ("J.P.S.") which substitutes the Commission's site Certification for the A.P.C.D.^{27/} permits in question. But the Commission has thus far backed away from applying this policy to any geothermal application. It has even said that the Policy is only "generally applicable" to geothermal facilities.^{28/} Given the hard line of the Lake Co. A.P.C.D., and the Commission's probable doubts as to its "override" authority, it is improbable at this time that Bottle Rock will be the "test case" for their powers. In that event, given the absence of available emission "trade-offs", it may never be constructed. The same fate may also await N.C.P.A. Geothermal Unit No. 1, a 66 MWe unit planned for a

nearby Cobb Valley site and submitted to the Commission as an N.O.I. on June 18, 1979. The Commission should use Bottle Rock as a test case for its "one-stop", override powers, as we discuss in more detail below.

(2) Sonoma County Plants:

(a) Unit 17: As might be expected, the picture is brighter for sites in Sonoma County. As noted above, P.G. and E.'s Unit 17 had fairly clear sailing on the air quality side. As for its Energy Commission timetable, the N.O.I. was submitted on May 26, 1978 and approved on December 20, 1978. The AFC phase, begun on March 2, 1979 was successfully concluded on September 20, 1979. The requisite air quality permits have already been issued and construction should begin shortly, with start up expected for late Summer, 1982.

(b) N.C.P.A. No. 2: This proposed 110 MW facility is in southeastern Sonoma County, just across the Lake County line from P.G. and E.'s proposed Unit 16. The unit is a "first" in many ways. It is N.C.P.A.'s first geothermal power, culminating a fifteen year struggle. It is the first geothermal power plant on Federal land. It is the first commercial size geothermal power plant to be the subject of a joint

environmental study (JES) by U.S.G.S., BLM (which must grant it a license), D.O.E., and the California Energy Commission (which, under an M.O.U. with the federal agencies, will be "lead" agency for its ^{29/} siting). Being in Sonoma County, its air quality hurdles were uneventful for the reasons outlined above.

The Energy Commission also handled it expeditiously. The N.O.I. was filed on August 11, 1978. It was approved on March 14, 1979, some seven months later.

The AFC application was filed on April 4, 1979, with final approval expected in late January, 1980 or early February. The coordination of the JES among the applicant and four agencies, three of them federal, is responsible for whatever slippage there has been.

(3) Summary: Generally speaking, the future of Commission geothermal plant siting looks promising. Later this year they will attempt to come up with an across-the-board, "generic technology" approach to H₂S abatement. This should eventually allow all Geysers sites to go through the Commission under the 12 month expedited process. The experience gained by Commission staff in the four proceedings just discussed should also allow for more coherent issue

focusing during future siting process.

Unfortunately, however, the Commission will probably have to test its statutory grant of override authority against the Lake Co. A.P.C.D. if it wishes to site any plants in certain areas of that jurisdiction. There appears to be no federal hurdle involved with the H₂S question.

^{30/} The recent Alabama Power Co. case overturned the E.P.A.'s "bare bones" 250 Ton/year "threshold" for the application of "Prevention of Significant Deterioration" (P.S.D.) regulations. Also, E.P.A.'s "New Source Performance Standards" (N.S.P.S.) regulate H₂S emissions from certain specific sources, but not geothermal powerplants.

The A.R.B. H₂S standard in question would therefore appear to be a matter of state concern only. The language of the Warren-Alquist Act would seem to clearly give the Commission the power to override an ^{31/} A.P.C.D. in this area. The Commission's J.P.S. with the State Air Resources Board follows up on that enabling language, but the Commission has not yet seen fit to exercise this power. Unless they are willing to do so in either the D.W.R. Bottle Rock or N.C.P.A. No. 1 proceedings, they (and D.O.E.) may have to write off a great portion of the large geothermal resource base in Lake County.

The issue involves more than geothermal plant siting in California. The full impact of the sweeping 1977 Clean Air Act Amendments is being felt elsewhere. P.G. and E., though thus far able to construct virtually all of its Geysers units even in the face of air quality problems, may find its Unit 16 Lake County site a tougher nut to crack. Worse, from their standpoint, is the local air quality regulatory hurdle they face in siting the twin, 1600 megawatt coal fired plant named "Fossil 1 and 2." Though it sailed easily through the Energy Commission's N.O.I. phase, New Source Review and other requirements of the Bay Area A.P.C.D. have caused its projected cost to double in ^{32/} one year. As a result, P.G. and E. has found itself in the same boat as D.W.R. on Bottle Rock. It recently asked the Commission to "suspend" the coal plant AFC process while it "studies" ^{33/} alternatives.

Given its hard line resistance to nuclear power, Federal energy policy bans on oil and gas generation and the huge air quality barriers to coal generation ^{34/} (both in and out of state), the California Energy Commission is going to have to bite the bullet soon. Only a perfect performance by all of the new H₂S abatement systems will bail them out and, in view of the problems with Unit 15's surface condenser, that seems unlikely. Even then, plant economics will be significantly worsened. From the outside, it seems difficult to justify blocking geothermal plants on air quality grounds. They may be the only arguably "sitable"

capacity in California.

But if an override of the Lake County A.P.C.D. is going to be equitable, something is going to have to be done about the emissions from P.G. and E. Units 1-12 in Sonoma County. Perhaps the "Model Rule's" January 1980 schedule of 100 grams/gmwh (gross mega-watt hour) needs to be tightened for these facilities. It would not seem fair, or rational, to make Lake County, already suffering from an H₂S violation, "eat" new emissions from Bottle Rock and N.C.P.A. 1 while allowing existing facilities in Sonoma County to put forth much higher emission rates. The Energy Commission may be powerless in this latter area but the A.R.B. isn't. They are empowered to "review the enforcement practices" of any A.P.C.D. (Cal. Health & Safety Code §41500(c)) and even, after appropriate hearings, exercise that District's power itself (Cal. H & S Code §41505, 41502). It may also be time to do away with the artificiality of county boundaries in the fight against H₂S in The Geysers and institute a "Unified A.P.C.D." composing both Lake and Sonoma Counties. (Cal. H & S Code 40150 et. seq.) The two might find this voluntary act preferable to override by the Commission and Air Board.

(B) Division of Oil & Gas: While the picture on California geothermal powerplant siting is a bit mixed due to air quality issues, the well-siting outlook looks somewhat brighter, at least for exploratory holes. Operating under the "lead agency" role given it by 1978's A.B. 2644, the Department of Conservation's Division of Oil and Gas (D.O.G.) has shortened the nagging delays previously associated with "exploratory projects."

During 1979, D.O.G. handled 37 such applications. The bulk, (some 34 projects) were issued "Notices of Exemption" within 40 days, after consultation with local agencies and the inclusion of relevant stipulations.

Yet another project was issued a "Negative Declaration," which took roughly 70 days due to some minor problems in data accumulation. Ordinarily, this category should be processed in approximately 40-45 days.

Only two of the 37 applications were the subject of an E.I.R., and both of these were cleared in 129 days, six days ^{35/} shorter than the 135 days allowed by A.B. 2644. Of even greater significance is the fact that the counties have been issuing their "conditional use permits" and carrying out their "responsible agency" role under C.E.Q.A. and A.B. 2644 in close parallel with the D.O.G. process. Thus no additional time logs seem to have cropped up beyond those minor ones just set out.

(C) The Counties: The third key player in the California geothermal regulatory scene, of course, is local government (usually the state's powerful counties). Here the picture is again mixed, with Lake County a bottleneck. Counties were given "lead agency" responsibility for all "geothermal field development projects" by the 1978 legislation.^{36/} Under this law they have one full year to make their decision, as "lead agency",^{37/} with D.O.G. relegated to a "responsible agency" role and given 180 days in which to follow up.^{38/} Both the counties and D.O.G. are limited to one permit per field development project. Thus the decision on any geothermal field development conditional use permit by a County Planning Department and/or Board of Supervisors is a one-time, up or down, "go" or "no go" decision.

Lake County's Planning Department has recently said "no go" to two such projects, both by McCulloch Oil and both slated for eventual D.W.R. powerplant sites.^{39/} One, the so-called "Francisco" leasehold, was to be the site of the aforementioned "Bottle Rock" plant.

The second, called "Newfield", was also to be the site of a future D.W.R. geothermal powerplant. It's rejection is being appealed to the courts, having been upheld by the Board of Supervisors.

The "Francisco" decision is currently before the Lake County Board of Supervisors. The Lake Co. A.P.C.D. also

refused to issue its permits for both projects. ^{40/} Other A.P.C.D. permits for field development have also been denied.

Imperial County presents a more sanguine regulatory posture at present. It has cooperated with the U.S.G.S. in that federal agency's environmental review of both Magma's and Republic's 10 MWe, East Mesa facilities. Building upon ^{41/} its "Geothermal Element" to the County General Plan, it has created an anomaly-wide E.I.R. for Heber and is presently putting together similar documents for Niland-Salton Sea and ^{42/} Brawley. This will pave the way for speedy county approval of "field development projects" and Southeast Desert A.P.C.D. issuance of the cognizant air quality permits in these three key geothermal areas over the next decade.

CHAPTER THREE FOOTNOTES

1/ Created by statute for a one-year effort. A.B. 3590 (1976).

2/ See California Report for a full discussion of these activities.

3/ As constituted by law, the G.R.B. did not include the Energy Commission, O.P.R., Solid Waste Mgmt. Board, or public members. Nor does it have any policy-making or promotional functions. See California Report, op. cit..

4/ Original G.C.C. members included the Energy Commission (Geothermal Fuels Office, Development Division), Office of Planning & Research, State Lands Commission, Department of Fish & Game and Department of Water.

5/ McNamara, State Agency Geothermal Coordination In California, J.M. Energy Consultants, Inc. Rpt. No. 1007 (Nov. 30, 1978).

6/ Providing that the plant capacity is 50 megawatts or more. CAL. PUB. RES. CODE §25120.

7/ California Report, op. cit..

8/ Several other units, including N.C.P.A. No. 1 and D.W.R.'s "South Geysers" facilities, entered the process in 1979 as N.O.I.'s.

9/ CAL. PUB. RES. CODE §25540, "Special Considerations With Respect To Geothermal Powerplant", Stats. 1974, Ch. 276, §2.

10/ Stats. 1978, Ch. 1271, §12, CAL. PUB. RES. CODE §25540.2(a).

11/ id.. As amended by Stats. 1979, Ch. 1091, §4.

12/ id.. As amended by Stats. 1979, Ch. 1091, §4.

13/ The Commission's geothermal siting regulations, amended to take into account the 1978, and 1979 legislation, are at 20 Cal. Admin. Code, Art. 4, Ch. 2, Sub. Ch. 5.

CHAPTER THREE FOOTNOTES (Con't)

14/

Procedural Conference and Proposed Schedule for Unit 16 N.O.I.
(Docket No. 78-N.O.I.-6) (Alan D. Pasternak, Commissioner,
1/26/79).

15/

Committee Order Directing Examination Of Issues (Docket
No. 79-AFC-1), June 22, 1979.

16/

No. Sonoma A.P.C.D. Rule 455, "Geothermal Emission Standards",
Regulation 1, Air Quality Control Rules Of The California
North Coast Air Basin (Ch. IV, "Prohibitions"). It was the
State Task Force's charge to the State Air Resources Board
(ARB) which led to the promulgation of an ARB "Model Rule"
and its subsequent adoption by No. Sonoma and Lake County.

17/

ibid, at Ch. II, "Permits", Rule 220 "New Source Review
Standards".

18/

Lake Co. A.P.C.D. Rules & Regulations, Ch. IV, "Permits",
at Section 602, "New Source Review".

19/

"Cobb Valley Tracer Study", Meteorology Research Inc..

20/

See California Report, op. cit., for the background.

21/

Section 602 (B) (2).

22/

Confidential communication to author.

23/

California Report, op. cit., at pp. 26 and 36.

24/

ibid., at p. 36.

25/

"County of Lake's Motion for Order Consolidating Proceedings", (Dec. 4, 1979).

26/

"D.W.R. Petition for Suspension of Proceedings" (Jan. 3, 1980).

27/

Calif. Report, op. cit., at p. 26.

CHAPTER THREE FOOTNOTES (Con't)

28/ ibid., at p. 27.

29/ Memorandum of Understanding Regarding the N.C.P.A. Geothermal Unit No. 2 Power Plant At The Geysers, Sonoma, County, California (BLM, U.S.G.S., D.O.E., Energy Commission) Nov. 16, 1978, included in N.C.P.A. No. 2 Draft Joint Environmental Study (Nov. 1979) at Appendix C.

30/ Alabama Power v. Castle 13 E.R.C. 1225 (D.C. Cir. June 18, 1979) Per curiam only.

31/ Ca. Pub. Res. Code §25500.

32/ "Utility To Delay on Coal-Fired Plant", L.A. Times, 1/12/80, pt. 3, pg. 11, Cl. 6.

33/ id..

34/ See Mohl, Fearey and McNamara "Legislative/Regulatory Constraints On Coal Use In California", Jet Propulsion Lab/ C.E.C. (Jan. 1979) for an in-depth discussion of the problems, which are just beginning to surface.

35/ All data obtained via telephone communication with Patrick Nevis and Doug Stockton, D.O.G., on 1/3/80.

36/ Stats. 1978, Ch. 1271, §2, adding CAL. GOVT. CODE §65960.

37/ CAL GOVT. CODE §65950, added by Stats. 1977, Ch. 1200, §1.

38/ CAL. GOVT. CODE §65952, added by Stats. 1977, Ch. 1200, §1.

39/ Telephone conversation between Scott McInnes, McCulloch Oil, and author, January 4, 1980.

40/ id..

41/ California Report, op. cit., at p.

42/ Telephone conversation between author and Imperial County Planning Director Dick Mitchell, Nov. 19, 1979.

APPENDIX A

MEMORANDUM OF UNDERSTANDING CREATING
A STATE GEOTHERMAL COORDINATING COUNCIL

This understanding is entered into this _____ day of _____, 1979, by and between the parties specified below and any other party subsequently joining according to the provisions of this understanding;

W I T N E S S E T H

WHEREAS,

- o there are substantial geothermal resources in the State of California;
- o the development of geothermal resources in California is technically feasible and economically attractive;
- o geothermal energy is a preferred energy resource which can assist substantially in meeting the energy needs of the people of California;
- o the development of geothermal resources may produce substantial revenues to state and local government and local economies but may also produce environmental impacts if not properly mitigated;
- o geothermal energy development projects are regulated by a multitude of state, local, and federal agencies according to their respective statutory authorizations and associated environmental statutes; and
- o the state agencies involved in geothermal energy regulations desire to achieve
 - a more efficient use of financial and human resources;
 - a reduction in duplication of effort;
 - a better coordination of programs, policies, regulatory activities, and information exchange;
 - a broader range of technical, financial, and environmental expertise in relation to their activities in the review, processing, and regulation of geothermal energy development projects and associated effects; and
- o state regulatory agencies have responsibility to ensure that geothermal energy is developed expeditiously while ensuring its environmental acceptability;

NOW THEREFORE, in consideration of the mutual covenants, conditions, and promises hereinafter set forth, it is agreed as follows:

I. GENERAL

1. The undersigned parties agree to form a State Geothermal Coordinating Council, herein referred to as the Council, with responsibilities and powers specified below.
2. The Council may be involved in a broad range of activities relating to geothermal energy, except as expressly limited below in Section VI.
3. The Council may carry out the following functions:
 - a. Communication and coordination of
 - i. statewide and interagency geothermal regulatory policy and attendant programs of Council members;
 - ii. joint initiation and review of, and response to, federal and state legislation potentially affecting geothermal resources, energy development, and utilization;
 - iii. recommendations for programs and policies to the appropriate federal agencies and to the Congress;
 - iv. state programs and policies and regulations to the appropriate local, regional, and federal governments and to the public;
 - v. technical and environmental studies and information affecting or of interest to Council members; and
 - vi. ways to improve efficiency in project review, decision making, and enforcement of applicable conditions and standards.
 - b. Assistance to Council members
 - i. in the review and formulation of geothermal policies, regulations, or programs upon request; and
 - ii. in the form of advice and technical expertise on geothermal matters of concern to member agencies; and
4. The Council shall pursue all reasonable means within its power to achieve its goals and objectives.

II. MEMBERSHIP AND ATTENDANCE

5. The Council shall be composed of one representative of each of the following agencies:
 - a. Air Resources Board
 - b. California Energy Commission

- c. Department of Conservation
- d. Department of Fish and Game
- e. Department of Parks and Recreation: Office of Historic Preservation
- f. Department of Water Resources
- g. Department of Health: Environmental Health Services Branch
- h. Solid Waste Management Board
- i. Water Resources Control Board
- j. Public Utilities Commission
- k. State Lands Commission
- l. Office of Planning and Research

6. To be a member of the Council, each agency listed above must be an official party to this memorandum of understanding.
7. The representative of each member agency, and alternate, shall be a person designated by the Chairperson, President, or Director of the respective agency, which designation shall be communicated to the Council within 30 days of the execution of the understanding, or subsequent joining by a new party.
8. In addition to official agency members, the Council shall also have three public members appointed by two-thirds vote of the Council membership within 60 days of the execution of this understanding. No such public member shall be employed directly with any official Council member agency. Public members shall disclose the names of agencies with which they've contracted for services within 15 days of being nominated to the Council. Public members shall not be signatories to this understanding but shall have all other rights and duties as an official member. Term of office shall not exceed 18 months, with staggered terms.
9. If funds are available, the GCC will select a member agency to be responsible for reimbursing public members for their travel expenses.
10. Each official member agency representative may be accompanied in Council or committee meetings by staff for assistance as needed.
11. The Council shall meet at least bi-monthly. The standing and ad hoc committees shall meet as needed or otherwise specified by the Council.

III. ORGANIZATION AND OPERATIONS

12. The Council shall elect by a majority vote a Chairperson, Vice Chairperson, and Secretary who shall each serve for a period not to exceed 18 months, or until this agreement is terminated or superseded by an act of the Legislature, whichever occurs first. The Chairperson, Vice Chairperson, and Secretary may be re-elected.

13. Duties of the Chairperson shall include:

- a. directing the overall administration of the Council and its activities;
- b. coordinating activities of the Council's standing and ad hoc committees;
- c. inviting attendance and presentations by special non-Council member persons to Council or committee meetings;
- d. conducting Council meetings;
- e. providing clerical staff support to the Council as required;
- f. representing the Council, upon its authorization, at meetings of federal, state, or local governments or other groups; and
- g. other activities as directed by the Council.

14. Duties of the Vice Chairperson shall include:

- a. assisting the Chairperson in execution of his/her duties;
- b. serving as substitute in the temporary absence of the Chairperson in any function of the Chairperson; and
- c. other assignments as directed by Chairperson or Council.

15. Duties of the Secretary shall include:

- a. preparing and keeping minutes of Council meetings;
- b. other assignments as directed by Chairperson; and
- c. preparing and mailing notices, agendas, and minutes of meetings to members and other interested parties.

16. The Council shall adopt specific rules of order and procedures for conducting its meetings and execution of its functions as required.

17. The Council may create standing and ad hoc committees as needed according to the provisions of this agreement and any subsequent rules adopted pursuant to paragraph 15 above.

18. Each official representative of Council member agencies shall serve as staff to the Council and its committees. Clerical services for the office of Secretary will be provided by the Secretary; clerical and administrative staff services shall be provided by the chairperson of each committee.

IV. VOTING, ADOPTION OF RULES, MOTIONS, AMENDMENTS

19. Each official member agency and public member shall be entitled to one vote, to be cast by the officially designated representative or alternate specified in paragraph 7.

20. No public member shall appoint a proxy.
21. The adoption of any rule or procedure, authorization for action, policy position, or appointment of public members, or other such decision, shall be made by a majority vote of all Council members.
23. Any solicitation of funds or the amendment of this understanding shall be made by two-thirds consent of all official signatory parties.

V. ADDITION OF NEW MEMBERS, TERMINATION OF PARTICIPATION, TERMINATION OF UNDERSTANDING

24. Any state agency not presently an official member of the Council may be invited or may petition the Council for membership stating the reasons or interests of the agency for desiring to join the Council. The petition for membership shall be discussed and acted upon at the next scheduled Council meeting after 30 days from receipt of the petition by the Chairperson. Any state agency so petitioning shall be accepted for membership upon a majority vote of the official members of the Council.
25. Any member agency or public member may terminate its membership or participation in the Council or any of its functions upon 30 days' written notice served upon the Chairperson, stating its reasons for such termination. During the ensuing 30-day period, all parties shall actively attempt to resolve any disagreements so that the termination can be avoided.
26. Failure by any agency or public member to attend four consecutive Council meetings, or all Council meetings during a six-month period, whichever time is greater, shall be grounds to infer a repudiation of this understanding and termination of participation by that agency or person.
26. This understanding may be terminated upon express authorization of all signatory parties, or when the number of signatory parties remaining becomes less than five, or if superseded by an act of the Legislature.

VI. LIMITATIONS

27. This understanding or any actions of the Council or its committees shall not abridge or infringe upon any member or non-member agency's or entity's authority, rights, or responsibilities.
28. The GCC provides a forum for communication and coordination among member agencies. Representatives to the GCC are expected to take draft policies developed in the GCC back to their respective department, agency, or commission for discussion and decision by their Director or Chairperson regarding support of the policy. GCC policy formulation shall follow this process.
29. The Council shall not perform, or attempt to perform, any function committed by law to any member agency or any other legally designated entity.
30. The Council shall not take part in any internal budgetary or personnel matter of a member agency unless specifically requested to do so by that agency. Such action shall then be carried out only upon majority vote of the Council.

31. The Council shall not accept or solicit federal or other funds for any activity or project that can be accomplished by or through any one or number of state agencies.

VII. EFFECTIVE DATE

32. This understanding shall take effect when duly executed upon official ratification of five of the agencies specified in paragraph 5.

IN WITNESS WHEREOF, the parties hereto have caused this agreement to be duly executed on the respective dates set forth opposite their signatures.

AIR RESOURCES BOARD

Date _____

By _____
Mary Nichols, Chairperson

ENERGY COMMISSION

Date _____

By _____
Richard L. Maullin, Chairperson

DEPARTMENT OF CONSERVATION

Date _____

By _____
Priscilla Grew, Director

DEPARTMENT OF FISH AND GAME

Date _____

By _____
E. C. Fullerton, Director

DEPARTMENT OF PARKS AND RECREATION
OFFICE OF HISTORIC PRESERVATION

Date _____

By _____

Dr. Knox Mellon, Historic Preservation Officer

DEPARTMENT OF WATER RESOURCES

Date _____

By _____

Ronald B. Robie, Director

DEPARTMENT OF HEALTH
ENVIRONMENTAL HEALTH SERVICES BRANCH

Date _____

By _____

Edwin W. Beach, Interim Director

SOLID WASTE MANAGEMENT BOARD

Date _____

By _____

John Moscone, Acting Chairperson

WATER RESOURCES CONTROL BOARD

Date _____

By _____

W. Don Maughan, Chairperson

PUBLIC UTILITIES COMMISSION

Date _____

By _____
John E. Bryson, President

STATE LANDS COMMISSION

Date _____

By _____
William F. Northrop, Executive Officer

OFFICE OF PLANNING AND RESEARCH

Date _____

By _____
Deni Greene, Deputy Director

